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(54) **IMMUNOASSAY FOR COMPLEX OF HUMAN  
 INTERSTITIAL COLLAGENASE AND INHIBITOR  
 AND APPLICATION TO CLINICAL DIAGNOSIS**

(57) Abstract:

**PURPOSE:** To determine a human active MMP-1-TIMP-1 complex in a sample material by using a monoclonal antibody which connects specifically with each of human MMP-1 and TIMP-1.

**CONSTITUTION:** A monoclonal antibody specifically bonding with human MMP-1 is prepared by using purified pro-MMP-1 as an immune source which is obtained by purifying human pro MMP-1 from a supernatant fluid of normal dermoplasts. The monoclonal antibody reacts specifically to the pro-MMP-1 and active MMP-1. For a

solid carrier at the determination according to this immunoassay, a ball of polystyrene or the like well adsorbing protein such as the antibody, a test tube, etc., are optionally selected and used. Meanwhile, an antibody for labelling is an IgG fraction which is obtained by fractioning a substance including the antibody by ammonium sulfate and purifying with an anion exchanger, for instance, an enzyme, a chemical substance or the like. A human active MMP-1-TIMP-1 complex in the blood serum of a patient like a cancer patient who shows sthenia in the activity of collagenase is thus determined and the method is applied to diagnose a group of diseases.

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